

## INSURANCE CLAIM: ENGINEERING APPRAISAL REPORT

Name of Insured: Mr Nicholas Kenyon & Mrs Marie-Ghislaine Latham-Koenig

Address of Insured: 23a Nassington Road, LONDON, NW3 2TX

Situation of Damage: 23a Nassington Road, LONDON, NW3 2TX



This report is prepared on behalf of Deacon Insurance Brokers for the purpose of investigating an insurance claim. It is not intended to cover any other aspect of structural inadequacy or building defect that may otherwise have been in existence at the time of inspection.

Date: 24/02/2020

#### INTRODUCTION

The technical aspects of this claim are being overseen by our Building Consultant Michael Whittington BSc(Hons) MCIOB AssocRICS, in accordance with our project managed service.

The claim is primarily concerned with damage to the rear elevation / single storey extension. A sketch plan and photographs are attached and all references to the property are as observed facing the front of the building.

## **DESCRIPTION OF BUILDING AND SITE**

The subject property is an end of terrace house, converted into 4 self contained flats, constructed in circa 1900, in a residential estate on a plot that is level. Flat A is occupied by the freeholder and occupies the ground and first floor levels within this converted property with access to the rear garden. Both the main building and rear single storey extension are of trdaitional construction, the main building has a hipped tiled roof and the extension has a flat roof.

#### SIGNIFICANT VEGETATION

T1 – Willow tree located within the rear garden of neighbouring property No.21. This tree is approximately 20m high and 18m from rear elevation / single storey extension.

T2 – Tree located within the policyholders rear garden. This tree is approximately 10m high and 5m from the rear elevation / single storey extension.

T3 & T4 - 2 to 3 stumped deciduous trees, both these trees are located within the rear garden of neighbouring property No.25 (within close proximity to the shared boundary fence with the risk address. These trees are approximately 6m high and within 4m of the rear single storey extension.

Policyholder vegetation – mixed species of shrubs located within rear garden along shared boundary with neighbouring property. This vegetation ranges in height from 0.5m to 2m and has been noted as being within close proximity to the rear elevation / single storey extension.

# DISCOVERY AND NOTIFICATION

Circumstances of Discovery Policyholder noticed cracking within lounge and kitchen, towards rear elevation of

property and reported damage to their InsurerInsurer Damage was noted towards

the end of summer 2019 (approximately August).

Subsequent action Insurer have requested for Sedgwick to attend and confirm if current damage

is related to subsidence

Claim notification Insurers were notified on 26/09/2019.

### REPORTS BY OTHERS

As per Deacon 'New Instruction Form' dated 26<sup>th</sup> September 2019, the policyholder has received a report concerning the damage from a contractor. We have requested a copy of this report from the policyholder

## NATURE AND EXTENT OF DAMAGE

Description and	The main area of damage is to the rear single storey extension and takes the form
Mechanism	of separation cracking between the rear elevation of the original building and the
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single storey rear extension. Further cracking is also present within the kitchen, which is located within the rear elevation of the original building.

Mechanism of movement has been noted as downwards towards foundation level and there is also evidence of slight rotational movement from the single storey extension moving away from the rear elevation of the original building.

Significance The level of damage is slight, and is classified as category 2 in accordance with

BRE Digest 251 - Assessment of damage in low-rise buildings..

Onset and We consider that the damage has occurred recently. It is likely that movement will Progression be of a cyclical nature with cracks opening in the summer and closing in the winter.

#### **SITE INVESTIGATION**

Reference to the geological survey map shows the anticipated subsoil as London Clay.

The site investigation has been undertaken by CET Ltd on 13<sup>th</sup> December 2019. For precise details of the trial pits and borehole locations, please refer to the attached CET 'Site Investigation Factual Report'.

#### Trial Pit No.1

A trial pit was excavated to the depth of 1.60m to the left hand corner of the rear extension, which revealed a concrete foundation to a depth of 1.45m bearing upon firm clay, which is classified as being shrinkable. A borehole was sunk within the trial pit to a depth of 3.00m, which confirmed firm clay (1.60m - 2.00m) and stiff clay (2.00m - 3.00m). The borehole was noted as being open with standing water at 1.60m on completion, with no roots observed below 2.50m.

In-situ testing was undertaken and a shear vane reading of 64 (Kpa) was measured at the underside of the foundations (1.45m), which confirms that the ground conditions at this level as being firm. Further readings of 114 (Kpa) and 120 (Kpa) were also recorded between 2.00m and 3.00m, these readings would indicate that the soil conditions are drier and more stiff at lower level towards the end of the borehole.

Roots up to 1.5mm in diameter were noted at the underside of the foundations and within the borehole down to a depth of 2.50m. Six roots were analysed and found to be alive and originate from Salix spp. Such roots are considered to originate from vegetation within close proximity to the subject property.

#### Trial Pit No.2

A trial pit was excavated to the depth of 900mm to the right hand side / junction between the single storey rear extension and rear elevation of the main building. Unfortunately it was not possible for the contractors to extend the excavation below this level due to an obstruction. As such the actual depth of the crushed brick foundation could not be confirmed. However the following has been established;

 The rear elevation to the main building appears to have a corbel brick foundation to a depth of 330mm that is bearing upon crushed brick, which extends to a minimum depth of 900mm.  The single storey rear extension has a 250mm thick concrete foundation to a depth of 600mm that is bearing on crushed brick, which extends to a minimum depth of 900mm.

Due to the ground conditions within the trial pit, a remote borehole was sunk adjacent to Trial Pit No.2 and this revealed made ground down to 0.90m, stiff clay (0.90m – 1.80m) stiff clay & fine sand (1.80m to 3.00m)

#### MONITORING

Level and crack width monitoring have been instructed and readings are to be taken at eight week intervals.

Base readings were taken on 06/01/2020 and we will report back on further readings once we receive the data from our contractor.

## CAUSE OF DAMAGE

Based on the information detailed above, we are of the opinion that damage has occurred due to clay shrinkage subsidence. This has been caused by moisture extraction by roots altering the moisture content of the clay subsoil, resulting in volume changes, which in turn have affected the foundations.

#### MITIGATION

We consider the damage will not progress if appropriate measures are taken to remove the cause. In this instance it is likely that vegetation for which the policyholder and other private owners are responsible is contributing toward the cause of damage.

An arborist report will be obtained to assist with this.

Our mitigation centre will also open up dialogue with neighbouring property regarding their willow tree.

### REPAIR RECOMMENDATIONS

We have not decided on the final type of repair required as our investigations have not yet been concluded. This involves undertaking superstructure repairs and redecoration. This decision has been taken based on our knowledge and experience of dealing with similar claims. In addition the results of the Site Investigation, laboratory testing and monitoring have been taken into account.

# PROJECT TEAM DETAILS

Michael Whittington BSc(Hons) MCIOB AssocRICS - Building Consultant Specialist Subsidence Team Katie-Ann Goodsell - Claims Technician Specialist Subsidence Team